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EXAMINER	
DOAN, PHUOC HUU	
ART UNIT	**PAPER NUMBER**
2617	

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/621,403	JANG, MIN	
	Examiner	Art Unit	
	PHUOC H. DOAN	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/02/06 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-36 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's remarks: the cited by Hogan and Kido combination do not teach or suggest these features "service limit information...designates at least one location pre-selected by the user within which said at least one service is to be limited".

Examiner' response: the reference recited by Hogan in view Kido rely on the rejection. Hogan specifically discloses the user mobile terminal before enter the LA (location area). The mobile stores this information in its temporary LA list to

select, which location area is allowed or forbidden (page 4, par. 0034]); and based on the system information, the message is transmitted via the base station over a broadcast channel for the new cell being considered for selection by the mobile terminal (page 5, par. [0045]).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims **1-2, 4-5, 7-19, 21-23, 25-29,31-32, and 35-36** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hogan (US Pub No: 2003/0040314)** in view of **Kido (US Patent No: 6,947,745)**.

As to claim 1, Hogan discloses a method comprising: storing service limit information for one or more locations in a mobile network (col. 4, par. [0033]); limiting at least one service "**location area access restriction**" to a radio device according to the location of the radio device (col. 3 through col. 4, par. [0032-0034]) and designates at least one location pre-selected by the user within which said at least one service is to be limited (page 4, par. [0034], page 5, par. [0045]

"based on the system information, the message is transmitted via the base station over a broadcast channel for the new cell being considered for selection by the mobile terminal") . However, Hogan does not disclose that comparing a location of a radio device to the stored information; and limiting at least one service to the radio device based on a result of the comparison, wherein the service limit information is stored in a network circuit based on preferences of a user of the radio device.

In the same field of invention, Kido specifically discloses that comparing a location of a radio device to the stored information (col. 14, lines 7-17); and limiting at least one service to the radio device based on a result of the **comparison** "**col. 11, lines 43-48**", wherein **the service limit information is stored in a network** circuit based on preferences of a user of the radio device (col. 11 through col. 12, lines 27-10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the service limit information is stored in a network as taught by Kido to the system of Hogan in order to limit an incoming message when mobile device on the limited areas.

As to claim 2, Hogan further discloses the method of claim 1, wherein the radio device is a mobile station (col. 1, par. [0002]).

As to claim 4, Hogan further discloses the method of claim 1, wherein the network circuit includes a mobile communication exchange (col. 4, par. [0038], col. 5, par. [0041-0042]).

As to claim 5, Hogan further discloses the method of claim 4, wherein the mobile communication exchange comprises at least one of a packet exchange and a circuit exchange (col. 4, par. [0038], col. 5, par. [0041-0042]).

As to claim 7, Hogan further discloses the method of claim 4, wherein: the mobile communication exchange is coupled to a home location register (" **in handling mobile terminal registrations**" col. 2, par. [0009-0010]); the mobile communication exchange is coupled to a universal terrestrial radio network (col. 4, par. [0039]); and the mobile communication exchange is coupled to one of a public switched telephone network and an Internet protocol network (" **internet provided by IP connectivity**" col. 4, par. [0038-0039]).

As to claim 8, Hogan further discloses the method of claim 7, wherein the mobile communication exchange is coupled to the Internet protocol network through a gateway GPRS support node (col. 4, par. [0038]).

As to claim 9, Hogan further discloses the method of claim 1, wherein said comparing includes comparing the location of the radio device with the stored information in a register of the network circuit (col. 5, par. [0045]), wherein the

register comprises at least one predetermined relationship between the location of the radio device and limitations on at least one service to the radio device (col. 5, par. [0045]).

As to claim 10, Hogan further discloses the method of claim 9, wherein said limiting at least one service to a radio device according to the location of the radio device is in accordance with said at least one predetermined relationship comprised in the register (col. 4, par. [0034-0036]).

As to claim 11, Hogan further discloses the method of claim 9, wherein the register is a home location register (col. 2, par. [0009-0010]).

As to claim 12, Hogan further discloses the method of claim 1, wherein the location of the radio device is represented by at least one of: a location area identifier (col. 2, par. [0015]; a service area identifier; and a routing area identifier (also see col. 5, par. [0042]).

As to claim 13, Hogan further discloses the method of claim 12, wherein: the location area identifier and the service area identifier are used for circuit service (col. 2, par. [0015, and col. 4, par. [0038]); and the routing area identifier and the service area identifier are used for packet service (col. 4, par. [0038], and col. 5, par. [0045]).

As to claim 14, Hogan further discloses the method of claim 1, wherein prior to said limiting at least one service to the radio device (col. 3, par. [0032]),

comprising: detecting a handover of the radio device to a new location (col. 4, par. [0033], and [0040]); and prior completing the handover to the new location (col. 4, par. [0034], informing a user of the radio device that at least one service to the radio device will be limited once the handover is complete (Detail col. 4, par. [0033-0036]).

As to claim 15, Hogan further discloses the method of claim 1, wherein said limiting is in accordance with a request from a user of the radio device to limit at least one service to the radio device according to the location of the radio device (col. 4, par. [0033-0034], and col. 5, par. [0044-0046]).

As to claim 16, Hogan further discloses an apparatus configured to implement the method of claim 1 (col. 5, par. [0041]).

As to claim 17, Hogan discloses an apparatus comprising (Fig. 7, par. [0041]), said subscriber service limitations designating at least one location pre-selected by a subscriber of the mobile station within which said service is to be limited (page 4, par. [0034], page 5, par. [0045]). However, Hogan does not disclose a home location register storing information "**col. 8, lines 23-29**" indicating predetermined relationships between limitations on subscriber services and locations of a mobile station (col. 10, lines 15-37); and a circuit which limits a subscriber service to the mobile station according to the information stored in the

home location register (col. 10, lines 38-60), said subscriber service limitations. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the information stored in the home location register as taught by Kido to the system of Hogan in order to limit an incoming message when mobile device on the limited areas.

As to claim 18, Hogan discloses a service control method using subscriber's location information for a mobile communication system comprising (col. 5, par. [0042]): registering information on a service limit according to a subscriber's location in a service profile of the subscriber during a service change or subscription (col. 5, par. [0043]); and if a service request is received (col. 5, par. [0046]), limiting the service on the basis of the mobile terminal subscriber's location information using registered contents of the subscriber's service profile (col. 5, par. [0043-0047]) and the registered contents designates at least one location pre-selected by the user within which the service is to be limited (page 4, par. [0034], page 5, par. [0045]). However, Hogan does not disclose that subscriber service limitations being designated based on preferences of a user of the mobile station.

In the same field of invention, Kido specifically discloses that subscriber service limitations being designated based on preferences of a user of the mobile station

(col. 11 through col. 12, lines 27-10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the service limit is designated based on preferences of a user of the mobile terminal as taught by Kido to the system of Hogan in order to limit an incoming message when mobile device on the limited areas.

As to claim 19, Hogan further discloses the service control method of claim 18, wherein the subscriber's location information for limiting the service is expressed by a location area identifier (LAI) (col. 2, par. [0015]), a routing area identifier (RAI) (col. 2, par. [0011]), and a service area identifier (SAI) (col. 2, par. [0012]).

As to claim 21, Hogan further discloses the service control method of claim 18, further comprising: if the mobile communication subscriber initially connects to a mobile communication network after the information on the service limit according to the subscriber's location is registered in the service profile of the subscriber (col. 1, par. [0007-0008]), transmitting the subscriber profile including service limit contents from a home location register to a mobile communication exchange to store the subscriber profile (col. 2, par. [0009-0012], and col. 5, par. [0044-0047]).

As to claim 22, Hogan further discloses the service control method of claim 18, further comprising, when the subscriber requests the service (col. 5, par. [0042]), transmitting service contents and the location information to a mobile communication exchange (col. 5, par. [0043]); comparing the transmitted service and a service request location with the service profile of the subscriber (col. 5, par. [0045]); and if the service limit contents according to the service request area coincide with each other, informing the service limit contents to the mobile terminal subscriber, and rejecting the service (col. 5, par. [0046]).

As to claim 23, Hogan further discloses the service control method of claim 18, further comprising, if a handover made by movement of the mobile terminal into a service limit area is produced while the subscriber is receiving the service (col. 1, par. [0007]), the steps of: sensing the handover (col. 1, par. [0007-0008]); detecting a target location of the handover (col. 2, par. [0009-0012]); checking whether the target location corresponds to the service limit location (col. 2, par. [0012-0014]); if the target location corresponds to the service limit area, informing the service limit area (col. 3, par. [0016]; and if the handover is made into the service limit area col. 4, par. [0033-0034]), informing the area in which the service is limited, and releasing the service (col. 5, par. [0042-0043]).

As to claim 24, 25, Hogan disclose a service control method using subscriber's location information for a mobile communication system provided with a mobile terminal (col. 5, par. [0041-0042]), a home location register (HLR), and a mobile communication exchange (col. 5, par. [0043]), the method comprising: extracting a kind of a service requested during a service request and a location of a subscriber (col. 5, par. [0044-0045]); and limiting the service if a present location of the subscriber is included in a limited location of the extracted service (col. 5, par. [0045-0047]) wherein the limited location is pre-selected by the subscriber (page 4, par. [0034], page 5, par. [0045]). However, Hogan does not discloses that registering a service limit according to the location information based on one or more preferences designated by the subscriber.

In the same field of invention, Kido specifically discloses that registering a service limit according to the location information based on one or more preferences designated by the subscriber (col. 11 through col. 12, lines 27-10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide registering a service limit according to the location information based on one or more preferences designated by the subscriber as taught by Kido to the system of Hogan in order to limit an incoming message when mobile device on the limited areas.

As to claim 26, the combination of Hogan and Kido further disclose the service control method of claim 25, wherein said registering includes "col. 5, par. [0043] of Hogan": storing contents of the service limit according to the location information in the HLR (col. 8, lines 23-25 of Kido); and if the subscriber's mobile terminal connects to a mobile communication network (col. 2, par. [0011] of Hogan), the mobile communication exchange reading out a service limit profile according to the location information from the HLR (col. 4, par. [0033-0039] of Hogan), the service limit profile designating the limited location pre-selected by the subscriber (page 4, par. [0034], page 5, par. [0045] of Hogan).

As to claim 27, this claim is rejected for the same reason as set forth in claim 25.

As to claim 28, Hogan further discloses the service control method of claim 25, wherein said limiting includes: the mobile communication exchange judging whether there is a location limit in the extracted service (col. 5, par. [0043]), and if it is judged that there is no location limit in the extracted service, normally processing the requested service (col. 5, par. [0045]); normally processing the requested service if there is the location limit in the extracted service, but the present location of the subscriber is not included in the limited location (col. 5, par. [0045-0046]); and reporting the service limit area and refusing the service if the

present location of the subscriber is included in the limited location of the extracted service (col. 5, par. [0045-0047]).

As to claim 29, this claim is rejected for the same reason as set forth in claim 19.

As to claim 31, Hogan further discloses the service control method of claim 25, wherein during said extracting, the mobile terminal requests a service request message including variables required for the service (col. 5, par. [0041]), the kind of the service (col. 4, par. [0033]), and the location information to the mobile communication exchange during the service request (col. 5, par. [0046]).

As to claim 32, Hogan discloses a service control method using subscriber's location information for a mobile communication system provided with a mobile terminal (col. 5, par. [0041-0042]), a home location register (HLR), and a mobile communication exchange (col. 5, par. [0043]), the method comprising: detecting a handover target location of the subscriber who has registered the service limit according to the location information when the subscriber receives the service (col. 1, par. [0007-0008]); and releasing the service if a handover to the service limit area occurs (col. 1 through col. 2, par. [0007-0012]), wherein said preferences designate at least one location pre-selected by the subscriber within which the service is to be limited (page 4, par. [0034], page 5, par. [0045]) . However, Hogan

does not disclose that registering a service limit based on one or more preferences designated by the subscriber.

In the same field of invention, Kido specifically discloses that registering a service limit according to the location information based on one or more preferences designated by the subscriber (col. 11 through col. 12, lines 27-10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide registering a service limit according to the location information based on one or more preferences designated by the subscriber as taught by Kido to the system of Hogan in order to limit an incoming message when mobile device on the limited areas.

As to claim 35, the combination of Hogan and Kido further disclose wherein the stored information is in a subscriber service profile held in a home location register (col. 8, lines 22-25, and lines 60-67 of Kido).

As to claim 36, the combination of Hogan and Kido further disclose wherin the stored information limits a service requiring receipt of a call from a third party while the radio device is in said one or more location (col. 10, lines 1-37 of Kido).

3. Claims **3, 6, 20, and 30, 34** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hogan in view of Kido and further in view of Kido and further in view of **Vasa (US Patent No: 6,826,397).**

As to claim 3, 34, the combination of Hogan and Kido discloses the method of claim 1, wherein said at least one service comprises at least one of: a circuit originating call "**a destination cell can support a connection to a user equipment unit at the same time the origination cell continues to service the connection**" col. 1, par. [0005]; a circuit terminating call (col. 1, par. [0006-0007]); additional service (col. 1, par. [0003]); roaming service (col. 4, par. [0033]); a packet originating call (col. 4, par. [0038-0039]); and a packet terminating call (col. 4, par. [0038-0039]). However, Hogan and Kido do not specific disclose that originating short message service.

Vasa specific disclose that originating short message service (col. 3, lines 6-16, and col. 4, lines 15-30); terminating short message service (col. 3, lines 6-16, and col. 4, lines 15-30). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the short message service as taught by Vasa to the method of Hogan and Kido in order to have a short message service by originating or terminating service as provided by Vasa.

As to claim 6, the combination of Hogan and Kido disclose the method of claim 5, wherein: the packet exchange comprises a serving GPRS support node (col. 4, par. [0038]. However, Hogan and Kido do not specific disclose the circuit exchange comprises a mobile switching center and a visitor location register.

Vasa specific discloses the circuit exchange comprises a mobile switching center and a visitor location register (col. 3, lines 30-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide mobile switching center and a visitor location register as taught by Vasa to the method of Hogan and Kido in order to have a communication service by originating or terminating service as provided by Vasa.

As to claim 20, this claim is rejected for the same reason as set forth in claim 3.

As to claim 30, this claim is rejected for the same reason as set forth in claim 3.

4. Claim **33** is rejected under 35 U.S.C. 103(a) as being unpatentable over Hogan in view of Kido as applied claim 33 above and further in view of **Rune (US Patent No: 6,212,390).**

As to claim 33, the combination of Hogan and Kido do not discloses all the limitation in claim 1. However, Hogan does not specific disclose the service control method of claim 32, further comprising the step of reporting in advance the subscriber of the service limit area if the target location moves to the service limit location before the third step.

Rune specific discloses the service control method of claim 32, further comprising the step of reporting in advance the subscriber of the service limit area if the target location moves to the service limit location before the third step (col. 8, lines 19-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the service limit area if the target location moves to the service limit location as taught by Rune to the service control method of Hogan and Kido in order to tracking the target would be allowed to access or not as provided by Rune.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUOC H. DOAN whose telephone number is 571-272-7920. The examiner can normally be reached on 9:30 AM - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GEORGE ENG can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phuoc Doan
04/15/06

GEORGE ENG
SUPERVISORY PATENT EXAMINER